

**REMARKS**

Claims 1-19 are pending in this application. Claims 1, 2, 13, 14, 16, 17, and 19 have been amended to further clarify and more precisely define the claimed invention. Claims 1, 13, 14, 16, 17, and 19 have been amended to state that the first image window contains “a set of data items associated with a corresponding expression and excluding data items unassociated with said corresponding expression”. Claims 1, 13, and 19 have also been amended to state that “said plurality of different types of predetermined data items comprises predetermined data items and associated predetermined allowable values for a corresponding predetermined data item”. Support for these amendments can be found throughout the specification and more specifically on page 7, lines 26-37. Claims 2, 14, 16, 17 have been amended to clarify that “said expression processor provides pre-expression execution syntax checking to validate an expression”. Support for these amendments can be found on page 7, lines 10-12. Claim 7 has been formally amended to state that “said resultant financial reimbursement sum expression [is] associated with said set of data items in said first image window”. Finally, claims 12 and 13 have been formally amended to include the word “number” in “version number identifier” to emphasize the numerical nature of the identifier. Thus, in view of the above identified support for the claim amendments, Applicant respectfully submits that no new matter has been added by these amendments.

**Rejection of Claims 1-2, 4-6, 8 -15, and 17-19 under 35 USC 102(b)**

Claims 1-2, 4-6, 8-15, and 17-19 are rejected under 35 USC 102(b) as being anticipated by the Microsoft Access 2000, (hereinafter: Access 2000) provided by University of Southern California (hereinafter: USC), “Access 2000 Advance Queries” and provided by University of Illinois at Springfield (hereinafter: UIS), and “Intermediate Access II”. These claims are deemed to be patentable for the reasons given below.

Amended independent claim 1 recites a system for providing a “user interface display image comprising a user interface menu generator for providing a displayable

image including [1] a first image window listing a set of data items associated with a corresponding expression individually selectable from a plurality of different types of predetermined data items available for incorporation in an expression used for calculating a result value, said plurality of different types of predetermined data items comprises predetermined data items and associated predetermined allowable values for a corresponding predetermined data item, [2] an image prompt element for permitting user entry of said expression and for incorporating a data item in an entered expression from said listed data items to provide a resultant expression in response to user selection of said data item in said first image window, and [3] an icon for initiating storing of said resultant expression to provide a result in response to user command". These features are not shown or suggested by USC or UIS.

The Rejection (on page 4 and elsewhere) states that Access 2000 includes an Expression Builder (EB), as referenced in USC and UIS, showing predetermined data items associated with a corresponding expression. However, Access 2000 neither discloses nor suggests "excluding data items unassociated with the said corresponding expression" as in the present claimed invention.

The Rejection (on pages 3 and 4 and elsewhere) fundamentally misunderstands and misinterprets the USC reference and erroneously alleges the Access 2000 EB having the window that shows data items Query1, Constants, Operators, etc (on USC, p. 21) is equivalent to "predetermined data items associated with a corresponding expression for incorporation in [the] expression" as in the present claimed invention. This error is made in connection with all the Application claims. The Access 2000 EB as referenced by USC does NOT show or suggest data items associated with a corresponding expression, but rather unambiguously provides the user with an exhaustive list of selectable Constants, Operators, Functions, etc. to be searched to determine relevant data items. In fact, according to UIS on page 8, the window in question "contains folders that list the table, query, form, and report database objects, **built-in** and user defined functions, constants, operators, and common expressions". The available data items in the Access 2000 EB as referenced by USC and UIS are not "predetermined" based upon any

association with “the corresponding expression” or with any regard to the functionality of the application at hand, as in the present claimed invention. Rather, USC and UIS reference Access 2000 EB as having an exhaustive list of **all** available functions. Therefore, USC and UIS neither disclose nor suggest “excluding data items unassociated with said corresponding expression”, which is claimed in the present invention.

Consequently, USC on page 20 recites in “Step 12” for the user to “Click ‘Built-In-Functions’” in order to access folders in which all available functions are present (“Select the ‘All’ Category”). USC proceeds to instruct the user as to exactly what function (“IIF” for example) is necessary in the context of the corresponding expression. These detailed instructions for navigation through extraneous folders and items provided by USC would NOT be necessary if the available “data items [were] associated with a corresponding expression” as in the present claimed invention. The “predetermined” nature of the data items in claim 1 is based upon a logically derived correspondence with the expression to be entered with regard to the nature of the application via the database engine as explained in the specification on page 7, lines 26-37. The Rejection classifies **any** data item, such as “Query1” on USC pg. 20, as “predetermined.” However, USC does not disclose any information regarding “Query1” as being predetermined in any way. Additionally, USC does not disclose or suggest a list of a “set of data items associated with a corresponding expression and excluding data items unassociated with said corresponding expression” as recited in the present claimed invention.

Furthermore, USC and UIC do not show (or suggest) a system in which the “plurality of different types of predetermined data items comprises predetermined data items and associated predetermined allowable values for a corresponding predetermined data item” as recited in the present claimed invention. The Rejection (on page 4) references the IIF function in USC as using “different types of predetermined data items [that] comprise predetermined data items associated with predetermined allowable values or ranges used in the expression of the IIF”. Applicant respectfully disagrees. There is no 35 USC 112 compliant enabling disclosure on USC page 15 that “predetermined data items” are utilized by the IIF function. Rather, the IIF function uses variables already in

the immediate database, which were not necessarily predetermined. IIF is a function based on the validity of a predetermined **condition**, and does not deal with “a set of data items associated with a corresponding expression and excluding data items unassociated with said corresponding expression” as recited in the present claimed invention. Similarly, the Rejection’s reference to the “Absolute [Value] Function” in UIS as using “predetermined data items” is similarly incorrect. UIS does not suggest show or suggest “predetermined data items and associated predetermined allowable values for a corresponding predetermined data item” as claimed by the present invention. There is a fundamental difference between a predetermined value as used in USC and UIS and a list of different types of “predetermined data items associated with a corresponding expression and excluding data items unassociated with said corresponding expression” as in the present claimed invention. The “predetermined” nature of those data items used in the present claimed invention is based on an association “with a corresponding expression” and exclusion based on being “unassociated with said corresponding expression”. Therefore, USC alone or in combination with UIS neither discloses nor suggests each and every limitation claimed in claim 1 as required by MPEP §§ 706.02, and 2141. Consequently, USC and/or UIS does not anticipate the present claimed invention. Claims 14 and 17 contain similar features to claim 1 and the arguments presented above are also applicable to claims 14 and 17.

Amended dependent claim 2 is considered to be patentable based on its dependence on claim 1. Claim 2 is also considered to be patentable because neither USC nor UIS show (or suggest) a system in which the “expression processor provides pre-expression execution syntax checking to validate an expression.” USC and UIS do not disclose “validat[ing] an expression” as claimed by the present invention. Instead, USC and UIS give instructions to generate an expression in Microsoft Access 2000 EB **without** any validation.

Dependent claim 4 is considered to be patentable based on its dependence on claim 1. Claim 4 is also considered to be patentable because neither USC nor UIS show (or suggest) a system involving the claim 4 combination of features in which the

“predetermined data items are individually selectable by selection of displayed elements in a hierarchal tree structure, said displayed elements representing predetermined data items”. While the hierarchal tree structure is used by USC and UIS, the data items displayed are not “**predetermined** data items” “excluding data items unassociated with said corresponding expression” but rather an exhaustive list of all available data items as discussed above with respect to claim 1.

Dependent claim 5 is considered to be patentable based on its dependence on claim 1. Claim 5 is also considered to be patentable because USC and UIS do not show (or suggest) an “expression processor” that “verifies an entered expression is valid and generates an indication of as said result identifying said entered expression is invalid” and “initiates generation of a displayed notification to a user indicating said entered expression is invalid” as recited in the present claimed invention. USC and UIS do not contemplate these features in combination with the features of claim 1. The Rejection on page 5 states that the USC discloses a “Microsoft Access” popup dialog box (p26-27) that is displayed in response to running a query. However, this popup dialog box does not verify whether “an entered expression is valid” nor does the popup box generate “an indication of as said result identifying said entered expression is invalid” as recited in the present claimed invention. The referenced dialog box only includes text indicating that, “[y]ou are about to update [x] row(s)”. This is not an indication of whether the “entered expression is invalid” as in the present claimed invention. Additionally, the reference on page 5 of the Rejection to a “means for popping a dialog box when data is entered correctly” is concerned with Microsoft Excel’s validation of “invalid field names” (item 10, UIS p.3) and NOT Microsoft Access 2000 Expression Builder. The Microsoft Excel spreadsheet application is fundamentally different from the Microsoft Access 2000 EB application. Finally, the Rejection’s reference to the “validation rule” on pg. 8 of UIS is incorrect. The validation rule of UIS is given as a reference location to find the Expression Builder icon button. There is no reference by USC or UIS to a validation rule in the Expression Builder itself. Consequently, neither USC nor UIS discloses or suggests the ability to verify whether “an entered expression is valid” as in the present claimed invention.

Dependent claim 6 is considered to be patentable based on its dependence on claim 1. Claim 6 is also considered to be patentable because there is no “validation rule” in UIS as described above with respect to claim 5 and thus USC and/or UIS does not anticipate the invention as claimed in claim 6.

Dependent claim 8 is considered to be patentable based on its dependence on claim 1. Claim 8 is also considered patentable because USC and UIS neither disclose nor suggest that the “plurality of different types of predetermined data items include miscellaneous values comprising **predetermined** specific words” as recited in the present claimed invention. The Rejection refers to the terms shown in “Fields or Table” as “predetermined data items” but does not indicate how or why those terms would be predetermined in relation to the Access 2000 Expression Builder (EB). In fact, the groups “Fields” and “Table” do not correspond with the Access 2000 EB since they do not appear in the EB menu. Further, neither “Fields” nor “Table” are concerned with the Expression Builder functionality and are thus unrelated. The terms shown in “Fields or Table” as referenced by USC and UIS are merely exhaustive lists of available items in Access 2000, which are not “predetermined data items” as in the present claimed invention.

Dependent claim 9 is considered to be patentable based upon its dependence on claim 1. Claim 9 is also considered to be patentable because neither USC nor UIS show (or suggest) a feature combination in which “said displayable image includes an image prompt element supporting user entry of a **name** for identifying a resultant expression and said user interface menu generator provides an image window permitting user selection of a template calculable expression from a plurality of predetermined template expressions.” Contrary to the Rejection statements, neither USC nor UIS anticipates or suggests “entry of a **name** for identifying a resultant calculable expression” as in the present claimed invention. USC and UIS discuss the Microsoft Access 2000 Expression builder, which only provides a user interface menu generator that permits user selection of a template calculable expression. However, USC and UIS do not disclose “entry of a

name for identifying a resultant calculable expression” as in the present claimed invention.

Dependent claim 12 is considered to be patentable based upon its dependence on claim 1. Claim 12 is also considered to be patentable because neither USC nor UIS shows (or suggests) a system in which an “icon for initiating storing of said resultant expression initiates allocation of a version number identifier to said resultant expression” as in the present claimed invention. UIS page 3 discusses how to update a query in Microsoft Access, which is NOT related to Microsoft Access Expression Builder (EB). UIS only discloses an update to a query in Microsoft Access and not an update to an **expression** in Microsoft Access EB. Thus, UIS does not disclose “allocation of a version number to said resultant **expression**” as in the present claimed invention. Additionally, UIS and/or USC nowhere suggests an “icon for initiating storing of said resultant expression” as recited in the present claimed invention.

Independent claim 13 contains features similar to claim 1 and is considered to be patentable for the same reasons. Claim 13 recites “an expression processor for resolving a resultant expression to provide a result in response to user command” wherein “said icon for initiating storage of said resultant expression initiates allocation of a version number identifier to said resultant expression and said expression processor uses said version number identifier in processing a latest version of said resultant expression to provide said calculated result value”. As discussed above, USC and/or UIS provide no 35 USC 112 compliant enabling disclosure of a version number being applied to each resultant expression as in the present claimed invention. Therefore, USC alone or in combination with UIS neither discloses nor suggests each and every limitation claimed in claim 13 as required by MPEP §§ 706.02 and 2141. Consequently, USC and/or UIS does not anticipate the present claimed invention.

Independent claims 14, 17 and 19 contains features similar to claim 1 and are considered to be patentable for the same reasons presented above with respect to independent claim 1.

Dependent claim 18 is considered to be patentable based on its dependence on claim 17. Applicant respectfully submits that the Rejection intended to reject claim 18 under UIS and/or USC (and not under Neilson as recited). The discussion of patentability of claim 18 is in reference to UIS and USC. Claim 18 is also considered to be patentable because USC and UIS do not show (or suggest) the feature combination of claim 18 in which “said expression processor processes said resultant expression to determine said resultant expression is valid and wherein said system for providing a user interface display image comprises machine executable code stored on a tangible storage medium”. Specifically, neither USC nor UIS disclose a validation mechanism or mention a “tangible storage medium” as in the present claimed invention.

Consequently, it is respectfully submitted that USC and UIS (alone or in combination) do not disclose each claimed feature and do not anticipate the present invention as claimed in claims 1, 13, 14, 17 and 19. As claims 2, 4-6, 8-12, 15 and 18 are dependent on independent claims 1, 13, 14 and 17 respectively, it is respectfully submitted that claims 2, 4-6, 8-12, 15 and 18 are similarly not anticipated by USC and UIS. Therefore, it is respectfully requested that the rejection of claims 1, 2, 4-6, 8-15, and 17-18 under 35 USC 102(b) be withdrawn.

**Rejection of Claims 3, 7 and 16 under 35 USC 103(a)**

Claims 3, 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Microsoft Access 2000, (hereinafter: Access 2000) provided by University of Southern California (hereinafter: USC), “Access 2000 Advance Queries,” and provided by University of Illinois at Springfield (hereinafter: UIS). The claims are considered patentable for reasons given in connection with claim 1 and for the following reasons.

Claim 3 recites a system in which “different types of predetermined data items comprise at least one of, (a) a patient identifier, (b) a medical condition identifier, (c) a patient address and (d) patient medical record information”. As discussed above in



relation to claim 1, the Rejection incorrectly identifies USC page 21 as displaying a field which includes “predetermined data items”. Contrary to the assertion in the Rejection, the above limitation is not mere data limitations but a specification for the proper selection of “predetermined data items” for inclusion into the “user interface display image”. USC instead displays **all** available data items and not “predetermined data items” as in the present claimed invention. The system disclosed in claim 3 is a medical application which requires at least one of the data limitations cited. The present claimed invention uses the limitation on data items in order to populate appropriate “predetermined data items” for user selection based upon the “corresponding expression” and the required functionality of the application. Furthermore, the combination of USC and UIS, which disclose Microsoft Access 2000 Expression Builder (EB), shows a means for selecting data items individually selectable from a plurality of different types of **non-predetermined** data items available for incorporation in an expression used for calculating a result. However, USC with UIS do not show or suggest a “set of data items associated with a corresponding expression and **excluding** data items **unassociated** with said corresponding expression”. Thus, the combination of USC and UIS do not disclose the present claim invention.

Amended dependent claim 7 is considered to be patentable based on its dependence on claim 1. Claim 7 is also considered to be patentable because USC alone or in combination with UIS neither discloses nor suggests a healthcare-related system that will provide a “set of data items in said first image window” which correspond to the “resultant financial reimbursement sum expression” as in the present claimed invention. This is wholly unlike Access 2000 Expression Builder (EB) as referenced by USC and UIS, which does not select a “set of data items” that relate to a corresponding expression, such as a “financial reimbursement sum expression” as in the present claimed invention. The data items are populated with respect to “the corresponding expression,” which in this case is a “financial reimbursement sum expression”. Thus, contrary to the Rejection, the “financial reimbursement sum expression” is not mere data limitations but a specific application of the invention that is **functionally related** to the placement of the “set of data items in said first image window”. Therefore, even if one were to combine these

references, the resulting system would not disclose or suggest the invention as claimed in claim 7.

Independent claim 16 is considered to be patentable based on the arguments present above with respect to claim 1. Claim 16 is also considered to be patentable because neither USC nor UIS show (or suggest) a system in which “different types of predetermined data items comprise at least one of, (a) a patient identifier, (b) a medical condition identifier, (c) a patient address and (d) patient medical record information”. Contrary to the assertion in the Rejection, the above limitation is not mere data limitations. Rather, the present claimed invention uses the limitation on data items in order to populate appropriate “predetermined data items” user selection based upon the “corresponding expression” and the application’s required functionality as discussed above with respect to claim 3. Furthermore, the combination of USC and UIS, which disclose Microsoft Access 2000 Expression Builder (EB), shows a means for selecting data items individually selectable from a plurality of different types of **non-predetermined** data items available for incorporation in an expression used for calculating a result. However, USC with UIS do not show “different types of predetermined data items” which may “comprise at least one of, (a) a patient identifier, (b) a medical condition identifier, (c) a patient address and (d) patient medical record information” as in the present claimed invention. Thus, the combination of USC and UIS do not disclose the present claim invention.

Consequently, it is respectfully submitted that Access 2000, USC and UIS (alone or in combination) provide no 35 USC 112 compliant enabling disclosure that makes the invention as claimed in claims 1 and 16 unpatentable. As claims 3 and 7 are dependent on independent claim 1, it is respectfully submitted that claims 3 and 7 are similarly not made unpatentable by Access 2000, USC and UIS. Therefore, it is respectfully requested that the rejection of claims 3, 7 and 16 under 35 USC 103(a) be withdrawn.

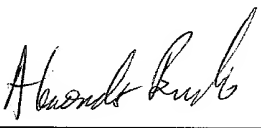
Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance.

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Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,

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